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D350-636-016
Job Sheet 182677



Part No: D350-636-016

Job Qty: 1 ea

Part Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 8/29/18

Job Tracking No:

Due Date: 9/28/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV B SHEETS 1,2,5,9 IPP rev:A 10.09.28 new issue DD verf:EC IPP Rev:B 11.04.14 ecn11-553 DD
verf:EC IPP Rev:C 11.10.18 as per NCR 11-906 DD verf:EC IPP REV:D 13.08.28 PER ECN13-594 DD
VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		9/28/18	0.00	0.00	Start Up Skidtubes-1		MCG
110	Skidtubes	1 pcs		9/28/18	0.00	4.78	Skidtubes-1		MCG, BE, JLM
120	QC	1 pcs		9/28/18	0.00	0.00	QC10		38, DAS
130	QC	1 pcs		9/28/18	0.00	0.00	QC5		9-89 38
140	HandFinish	1 pcs		9/28/18	0.00	0.98	HandFinish1		DR 18/10/126
150	QC	1 pcs		9/28/18	0.00	0.00	QC7-2		MCG
160	Skidtubes	1 pcs		9/28/18	0.00	4.78	Skidtubes-1		T. 38, BE, PD
170	QC	1 pcs		9/28/18	0.00	0.00	QC10		38, DAS
180	QC	1 pcs		9/28/18	0.00	0.00	QC5		9-89 38
190	HandFinish	1 pcs		9/28/18	0.00	0.98	HandFinish2		DR 18/10/117
200	SprayPaint	1 pcs		9/28/18	0.00	0.61	Spray Paint		Rec'd OCT 3 0 2018
210	QC	1 pcs		9/28/18	0.00	0.00	QC14		M 18-10-30
220	HandFinish	1 pcs		9/28/18	0.00	0.98	HandFinish4		M 18-10-BAS
230	QC	1 pcs		9/28/18	0.00	0.00	QC5		OCT 3 1 2018 68
240	Packaging	1 pcs		9/28/18	0.00	0.00	Packaging1-3		NOV 0 8 2018 9-89
250	QC	1 pcs		9/28/18	0.00	0.00	QC4		DAS 659 9-89-89
260	Packaging	1 pcs		9/28/18	0.00	0.00	Packaging3-1		NOV 0 8 2018
270	QC	1 pcs		9/28/18	0.00	0.00	DC		DAS 21 NO 1 0 2018
280	QC21-FG	1 Ea		9/28/18	0.00	0.00	QC21		NOV 0 8 2018

Part Op 110 - 1- Pick D2600-3 Bent 2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg
ations: D4168-2 3- Drill pilot holes for blade fitting bolt holes using DT8983. Start with 3/16", then open to 0.500" using center drill
then ream holes using 0.500" reamer. PIN first side. Repeat process on second side. ***ENSURE PROPER
POSITIONING FWD BEND MUST BE FACING UP WHEN DRILLING FIRST SIDE*** Drill pilot holes as per Dwg D4168
sheet 5 (D4168-2 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail K) 4-
Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting, section R-R and open to 0.500" 5- Drill
tow ring hole using DT9616 detail "J" 6- Drill most FWD wearplate hole using DT9678 locating of 66.54" hole 7- Open up
holes of Detail J to 0.297" (total of 2 holes per side) +.201" (total of one hole per side) as per dwg D4168. 8- Weld D2744
Cap as per Dwg D4168 and QSI 004. Fill grooves in bend left from bending as per QSI 004 A/R Aluminum Rod batch:
138634 9- Grind welds flush as per Dwg D4168

160 - 1-Open up holes using hole saw of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg
D4168. 2-Open up holes using hole saw of Detail K to 0.750" (total of 4 holes per side) as per dwg D4168. 3- Open float
hole to 0.500" using uni-bit (4 per side) and Run on wearplate holes to .375" 4 per side 4-Chamfer holes of Detail K,L,
ground handling and float holes per dwg D4168 (welding instructions on sheet 9) 5-Deburr and blow out all chips from

Atelier: P0041427-C2

OCT 23 2018

Plex 8/29/18 3:18 PM Dart.lajeunesse.marie

QA/NCNWO Rev 1
Assurance/Quality
H:/FORMS/Quality
Identification
Date Tested

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No. _____				Water Jet ☐		Engineering ☐					
NCR No. _____				Prod. Eng. Coord. ☐		Quality ☐					
Date: _____				Store/Packaging Supplier ☐		Other ☐					
Description: _____		 Container No: S108258 Part: D350 - 636 - 016 Job No: 182677 Serial No/Batch: S1082 Revision: _____ Inspector: _____ Exp Date: _____ Instructions: TC STC SH99 -- 7		MRB (QSI042) Approval							
				Completed By							
				Lead hand / Supervisor Approval Verification							
				QC / QA Coordinator Approval							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Post Expiry Date ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
OTHER: _____											

inside of tube 6- Prepare tube for welding, remove alodine as required. 7-Bond web D2739 in place as per QSI 015, let cure for 12hrs. A/R Sikaflex-291 batch: _____ exp. date: _____ ***ATTN: USE I-BEAM LOCATION AID (BLADE FITTING)*** 8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D4168 & QSI004 (welding instructions on sheet 8) A/R Aluminum Rod batch: 138673 9- At section AP-AP drill out x-bolt spacer to 0.404" 10-Grind welds flush as per Dwg D4168 11-Spot face ground handling holes section (total of 4 places per side) as per dwg D4168 12-C'bore section CH-CH. ADJUST TOOLING AS REQUIRED. VERF BY: _____ 13- Deburr holes, ensure tube is free of all scratches before sending to paint. ***** FOR DELUXE SKIDTUBE IF APPLICABLE DRILL TOW RING HOLE IN TUBE ***** REF TO W/O BATCH: _____

180 - ***VERIFY C'BOARD IS GOOD***

190 - Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

200 - 1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: _____ 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: _____

210 - Inspect for foreign object per QSI 024

230 - 1- Install inserts as per Dwg D4168 2-Inspect for Foreign Objects 3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D4168 SIKA FLEX 241 BATCH: M1138443 EXP DATE: 19-03

4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: M1138847 5-Coat all exposed fasteners with "LPS Procyon" batch: M1133690

250 - If making a D350-636-216 pick kit will only requires: 1 X AN3C37A 1 X AN3C34A 1 X AN3C42A 2 X D3493-1

260 - *****ensure antiseize is on AN8C21A bolts*****

270 - Identify and pack for shipping as per PPPD350-636-016 Location : FG071

275 - record fwd angle: 89.7 Photocopy blue file and type labels per PPP D350-636-016 CHG 005

must stay at CHG005 DAS 9 9-89

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2600-3-BENT-RH	Extrusion Bent RH	1 Ea (1 ea)	90-Start up Operation	5081485
D2744	Cap	1 Ea (1 ea)	90-Start up Operation	5060499
D2739	350 I-Beam	1 Ea (1 ea)	160-Skidtubes	5080893
D2743	Crossbolt Spacer	8 Ea (8 ea)	160-Skidtubes	5090612
D3490-1	Cross Bolt Spacer	4 Ea (4 ea)	160-Skidtubes	5082748
D3490-3	Cross Bolt Spacer	4 Ea (4 ea)	160-Skidtubes	5107862
ALS4-1032-225	Rivnut	4 Ea (4 ea)	230-HandFinish	5058138
AN3C34A	Bolt	1 Ea (1 ea)	230-HandFinish	5063454
AN3C36A	Bolt	4 Ea (4 ea)	230-HandFinish	F1136658-1
AN3C6A	Bolt	4 Ea (4 ea)	230-HandFinish	5049157
AN6C44A	Bolt	4 Ea (4 ea)	230-HandFinish	5006333
AN8C35A	Bolt	1 Ea (1 ea)	230-HandFinish	5163997
D2745	Bushing	8 Ea (8 ea)	230-HandFinish	5091818
D3488-042	Blade Fitting RH	1 Ea (1 ea)	230-HandFinish	5093460
D3492-1	Plug	8 Ea (8 ea)	230-HandFinish	5107238
D3492-3	Plug	8 Ea (8 ea)	230-HandFinish	5107030
D3631-1	Washer	8 Ea (8 ea)	230-HandFinish	5058407
D3873-1	Bushing	7 Ea (7 ea)	230-HandFinish	5117551
D4154-041	Wearplate Assembly	1 Ea (1 ea)	230-HandFinish	5103294
D4170-1	Bushing	4 Ea (4 ea)	230-HandFinish	5019233
D4171-1	Bushing	1 Ea (1 ea)	230-HandFinish	5061056
MS21043-3	Nut	5 Ea (5 ea)	230-HandFinish	5083347
MS21043-6	Nut	4 Ea (4 ea)	230-HandFinish	5058146
MS21083C8	Nut	1 Ea (1 ea)	230-HandFinish	5090633
NAS1149C0332R	Washer	4 Ea (4 ea)	230-HandFinish	5089464
NAS1149C0363R	Washer	9 Ea (9 ea)	230-HandFinish	5017102-1
NAS1149C0832R	Washer	1 Ea (1 ea)	230-HandFinish	5076017-2
NAS1515H3L	Washer	4 Ea (4 ea)	230-HandFinish	5083559
NAS1611-010	O-Ring	8 Ea (8 ea)	230-HandFinish	5106792
NAS1611-013	O-Ring	8 Ea (8 ea)	230-HandFinish	5057606
AN3C37A	Bolt	1 Ea (1 ea)	250-Packaging	5064011
AN3C42A	Bolt	1 Ea (1 ea)	250-Packaging	5041523
AN8C21A	Bolt	2 Ea (2 ea)	250-Packaging	5099514
D2741	Replacement Blade	1 Ea (1 ea)	250-Packaging	5092280
D3493-1	Washer	2 Ea (2 ea)	250-Packaging	5125812
MS21083C8	Nut	2 Ea (2 ea)	250-Packaging	5050046
NAS1149D0863J	Washer	2 Ea (2 ea)	250-Packaging	5089248

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective : _____				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

90-Start up Operation	D2600-3-BENT-RH	1	9	0
	D2744	1	43	0
160-Skidtubes	D2739	1	18	0
	D2743	8	55	0
	D3490-1	4	91	0
	D3490-3	4	14	0
230-HandFinish	ALS4-1032-225	4	2,304	0
	AN3C34A	1	24	0
	AN3C36A	4	517	0
	AN3C6A	4	272	0
	AN6C44A	4	174	0
	AN8C35A	1	54	0
	D2745	8	163	0
	D3488-042	1	10	0
	D3492-1	8	88	0
	D3492-3	8	133	0
	D3631-1	8	587	0
	D3873-1	7	38	0
	D4154-041	1	5	0
	D4170-1	4	18	0
	D4171-1	1	15	0
	MS21043-3	5	1,055	0
	MS21043-6	4	222	0
	MS21083C8	1	211	0
	NAS1149C0332R	4	6,066	0
	NAS1149C0363R	9	193	0
	NAS1149C0832R	1	411	0
	NAS1515H3L	4	527	0
	NAS1611-010	8	213	0
	NAS1611-013	8	170	0
250-Packaging	AN3C37A	1	63	0
	AN3C42A	1	26	0
	AN8C21A	2	106	0
	D2741	1	85	0
	D3493-1	2	41	0
	MS21083C8	2	211	0
	NAS1149D0863J	2	131	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER : _____			

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN96C10	WASHER (OR NAS1149C0363R)
4	4	4	4	AN96C10L	WASHER (OR NAS1149C0332R)
1	1	1	1	AN96C816L	WASHER (OR NAS1149C0832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0" ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- WELD PER DART QSI 004
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

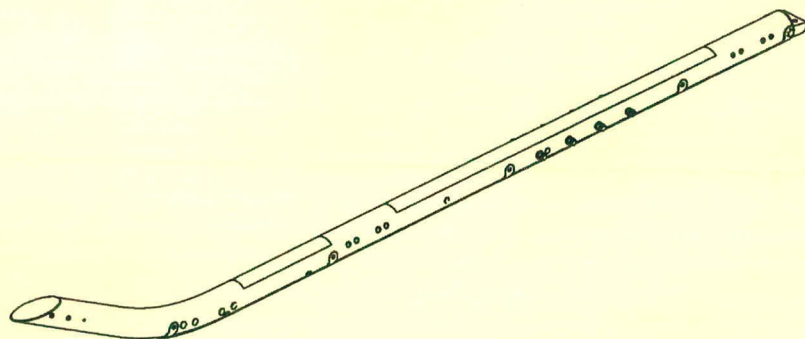
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 182678 MLS
180929

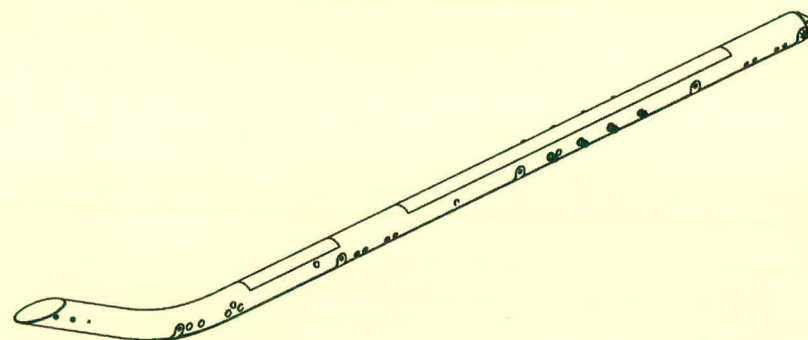
RELEASED
2013-08-13
MD

B	ADD VIEW TO CONTROL FWD BEND ORIENTATION (ZN D-1-41-54-84-7); UPDATED FINISH OPTIONS. REASON: PART13-276 AND NCR13-2757	MB	13.07.11
A	NEW ISSUE	SC	10.08.09
REV	DESCRIPTION	BY	DATE
DESIGN	SC		
DRAWN	JB		
CHECKED	JB		
MFG. APPR.	JB		
APPROVED	JB		
DE APPR.	JB		
DATE	13.07.11		

DART AEROSPACE USA, INC. KENT, WA	
DRAWING NO. D4168	REV. B
TITLE 350 SKIDTUBE ASSEMBLY	SHEET 1 OF 11
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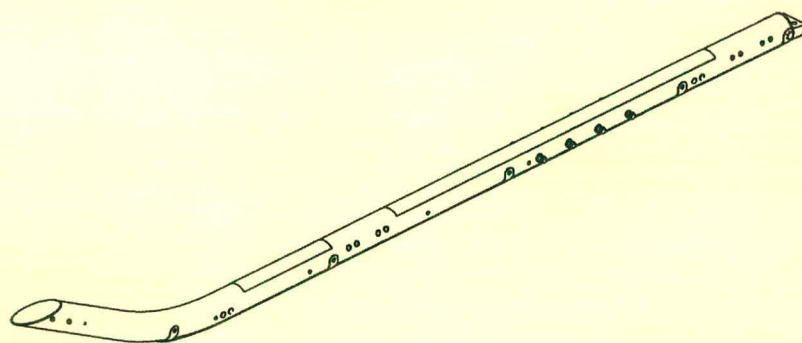
D4168-041 350 SKIDTUBE ASSEMBLY, LH



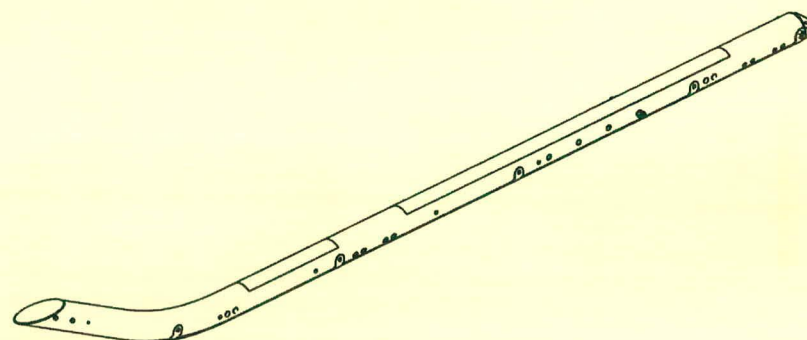
D4168-042 350 SKIDTUBE ASSEMBLY, RH

RELEASED
2013-08-13
and

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	<i>[Signature]</i>	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D4168	SHEET 2 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
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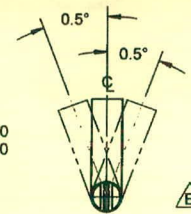
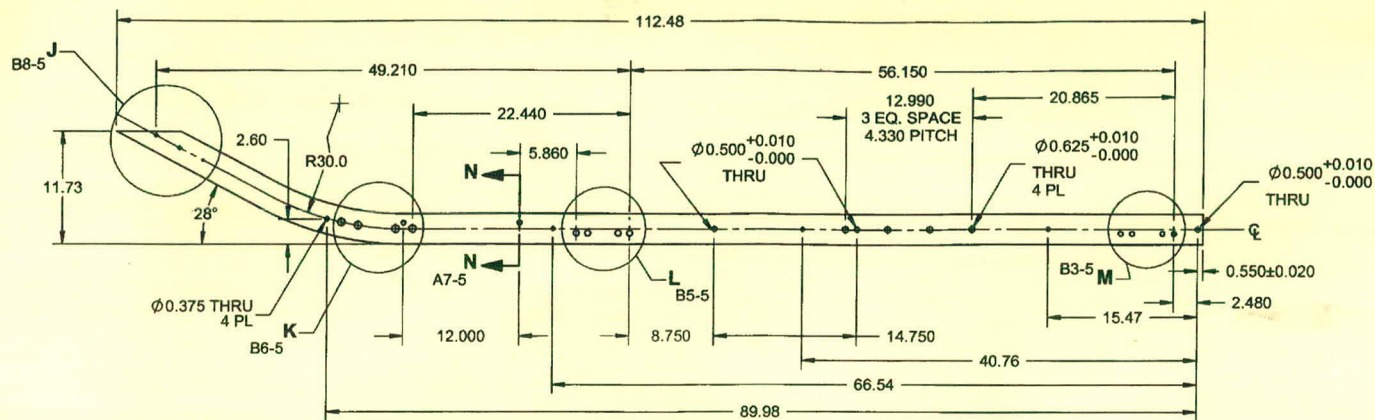
D4168-043 350 SKIDTUBE ASSEMBLY, LH



D4168-044 350 SKIDTUBE ASSEMBLY, RH

RELEASED
2013-08-13
AND

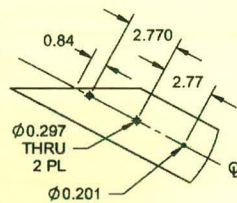
DESIGN		DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	REV. B
CHECKED		DRAWING NO. D4168	SHEET 3 OF 11
MFG. APPR.		TITLE	SCALE
APPROVED		350 SKIDTUBE ASSEMBLY	NTS
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DATE	13.07.11		



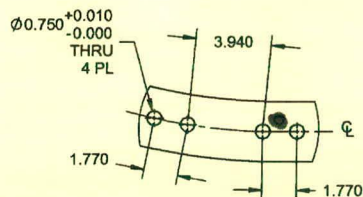
MAX ALLOWABLE
TWIST ON FWD BEND
(VIEWED LOOKING FWD)

OUTBD

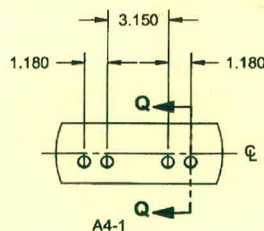
D4168-2 RH SKIDTUBE



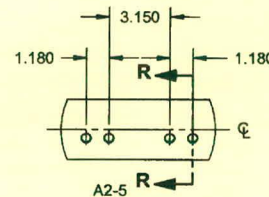
DETAIL J
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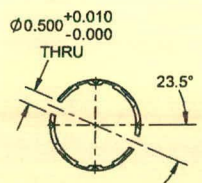
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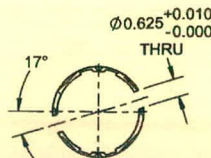
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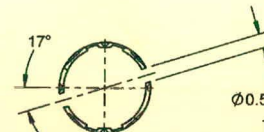
DETAIL M
SCALE 2X



SECTION N-N
SCALE 3X, 2 PL



SECTION Q-Q
SCALE 3X, 4 PL

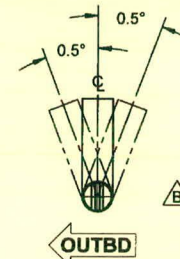
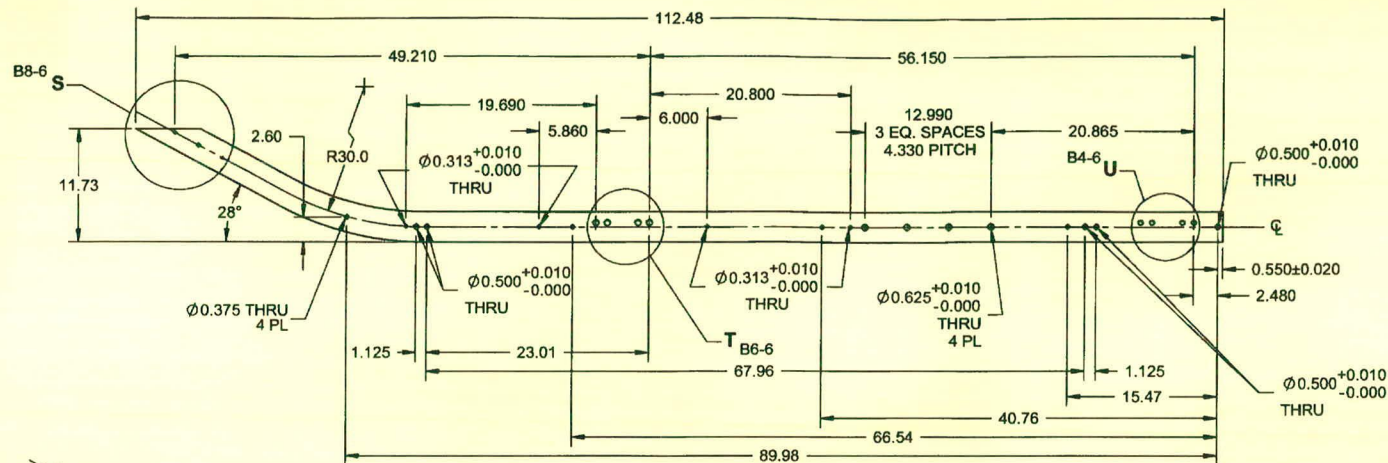


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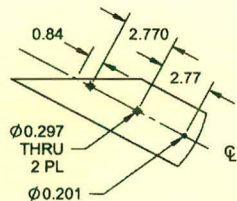
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2013-08-13

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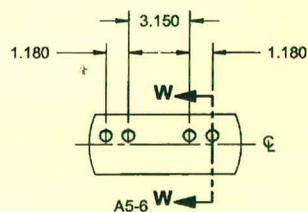
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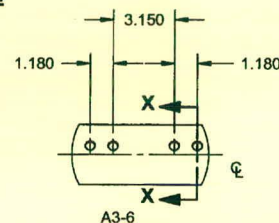
MAX ALLOWABLE
TWIST ON FWD BEND
(VIEWED LOOKING FWD)



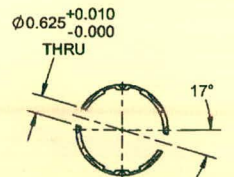
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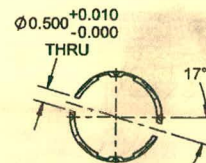
DETAIL T
SCALE 2X



DETAIL U
SCALE 2X



SECTION W-W
SCALE 3X, 4 PL



SECTION X-X
SCALE 3X, 4 PL

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2013-08-13

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CHECKED
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APPROVED
DE APPR.
DATE 13.07.11

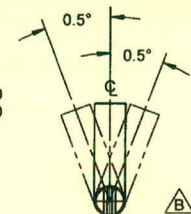
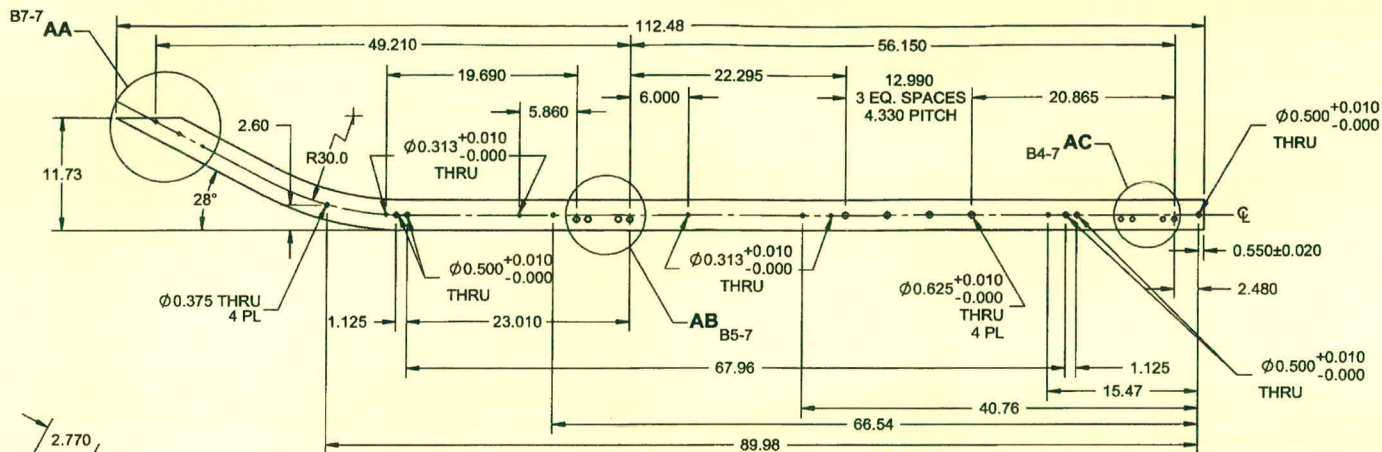
DART AEROSPACE USA, INC.
KENT, WA

DRAWING NO. **D4168**
TITLE **350 SKIDTUBE ASSEMBLY**
REV. B
SHEET 6 OF 11
SCALE
NTS

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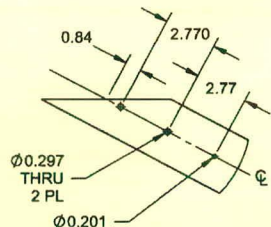
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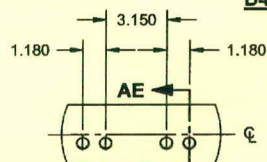
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MAX ALLOWABLE TWIST ON FWD BEND (VIEWED LOOKING FWD)

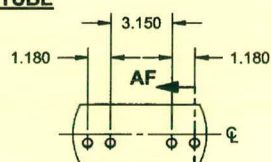
D4168-4 RH SKIDTUBE



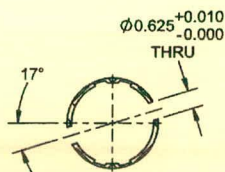
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SCALE 2X



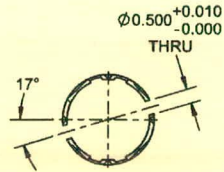
DETAIL AB
SCALE 2X



DETAIL AC
SCALE 2X



SECTION AE-AE
SCALE 3X, 4 PL

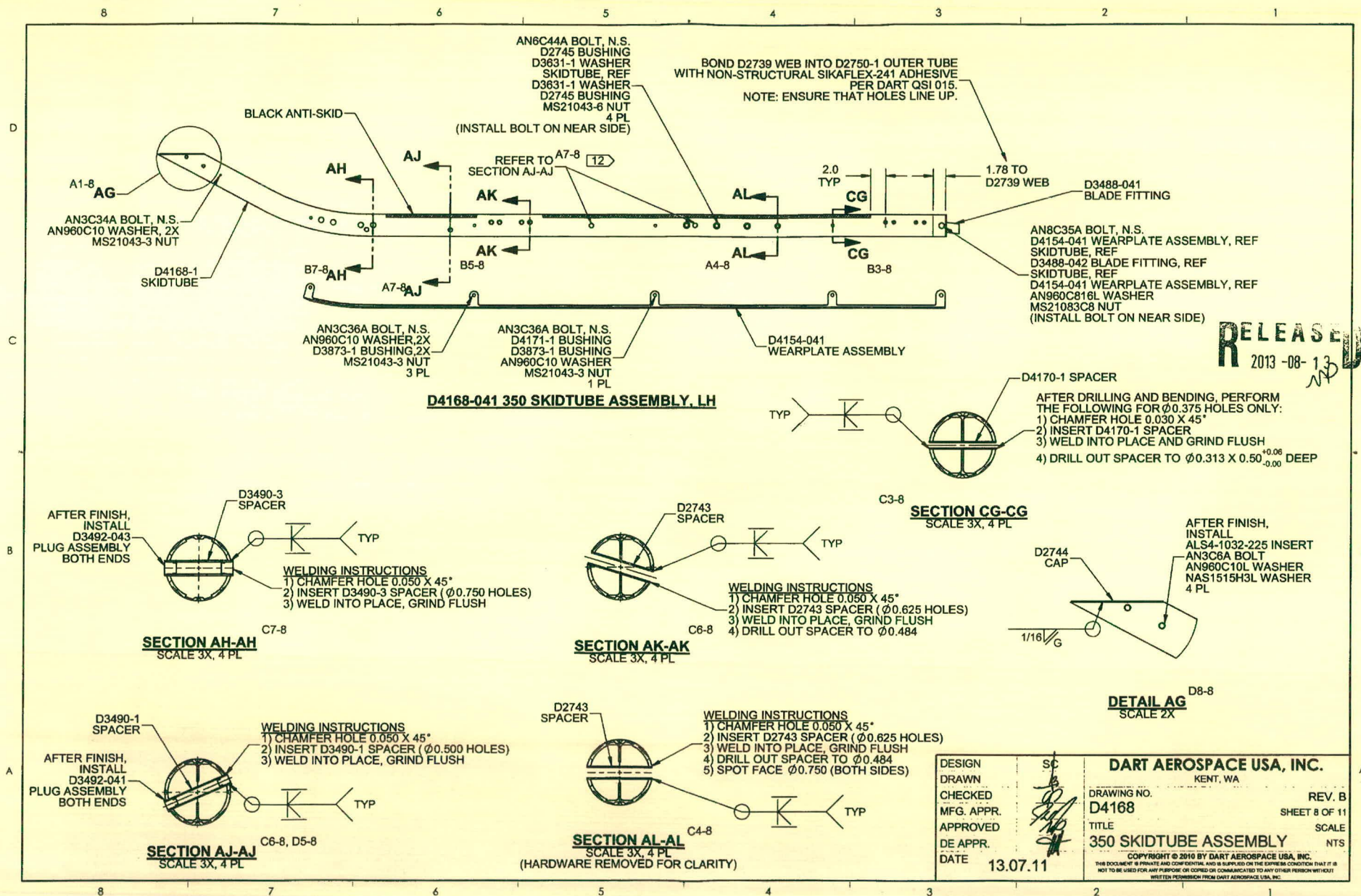


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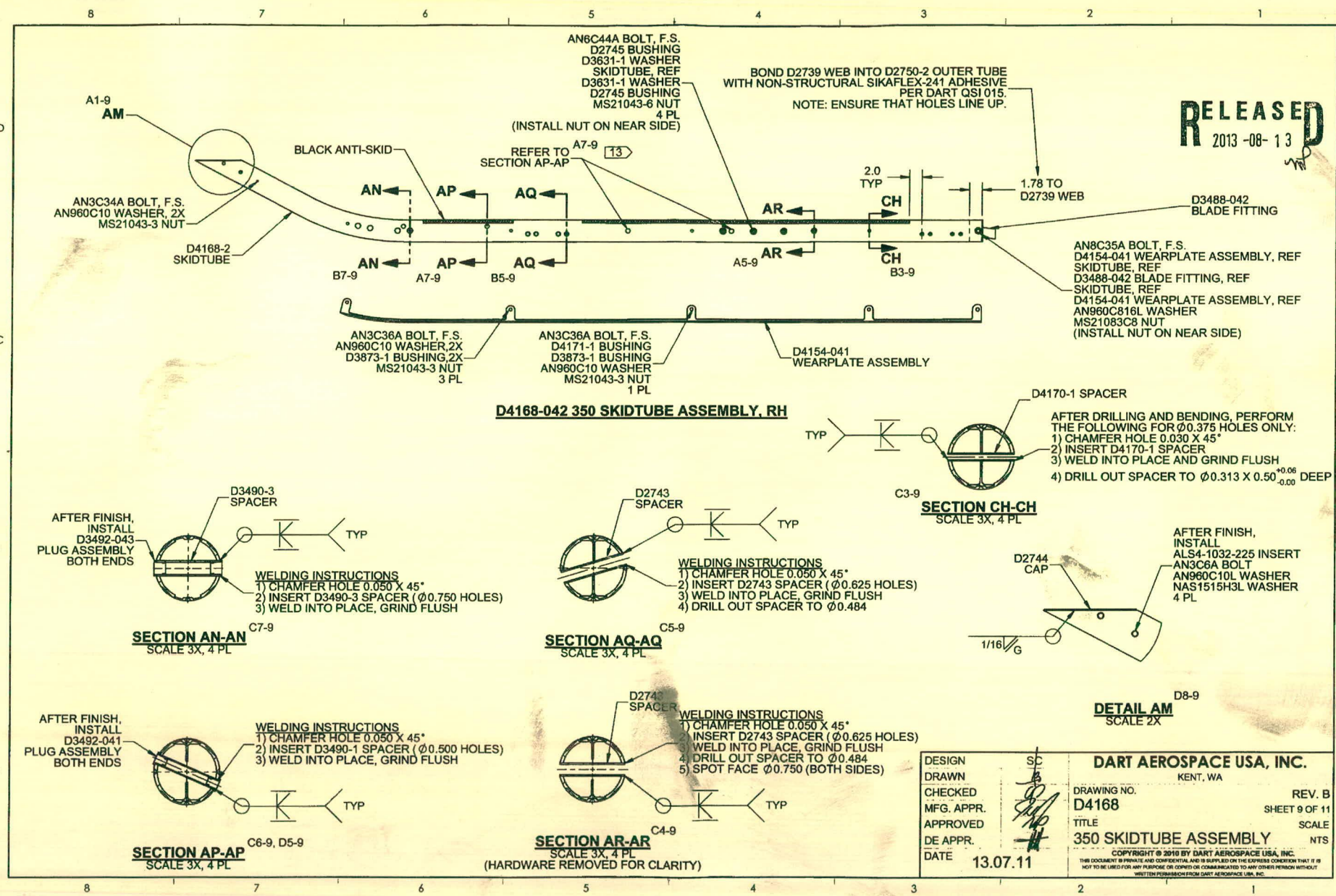
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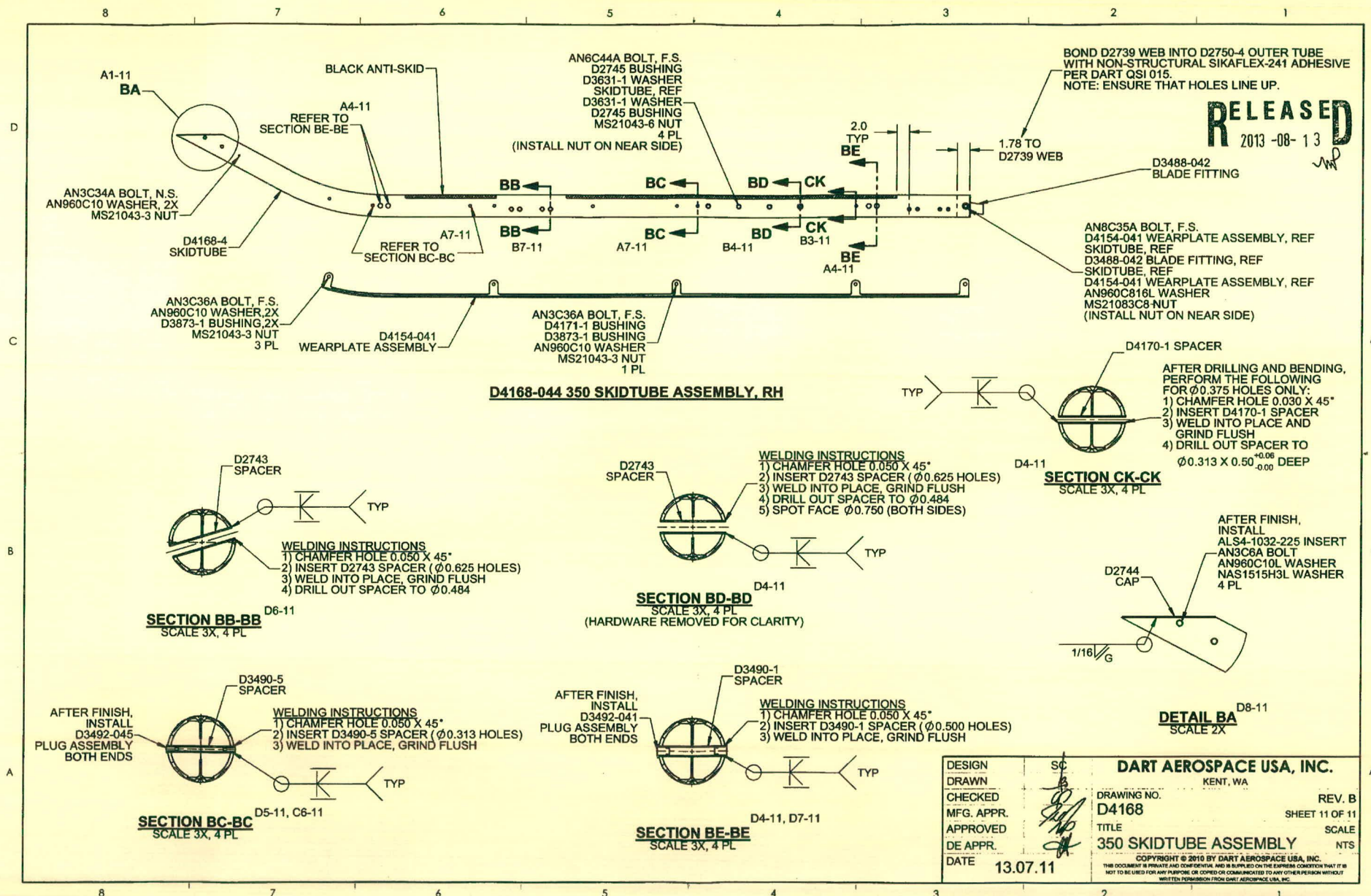
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2013-08-13



DART AEROSPACE USA, INC. KENT, WA		REV. B SHEET 9 OF 11 SCALE NTS
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SPECIFICATION CONTROL DRAWING

D2600-X-XXX EXTRUSION

NOTES:

- 1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B221

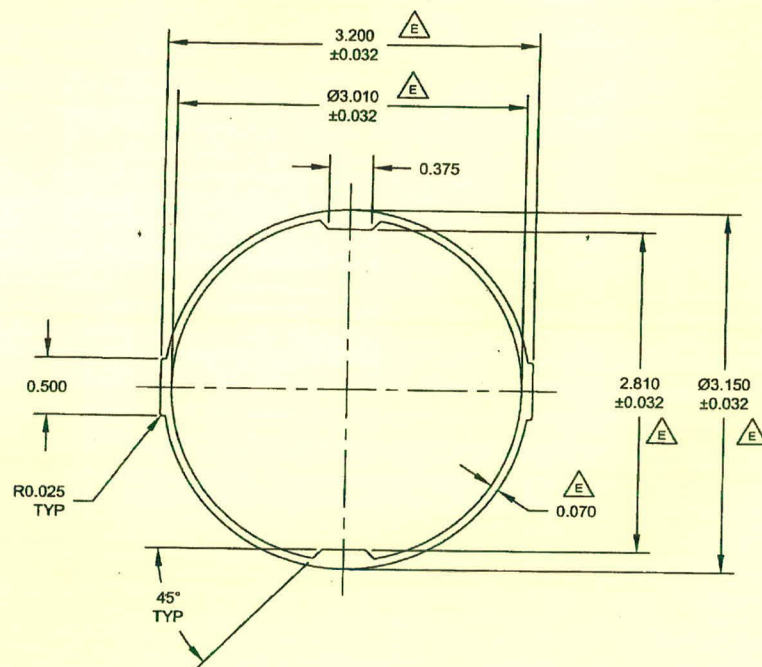
MINIMUM TENSILE YIELD STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 40 KSI
MINIMUM ELONGATION = 8%

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES

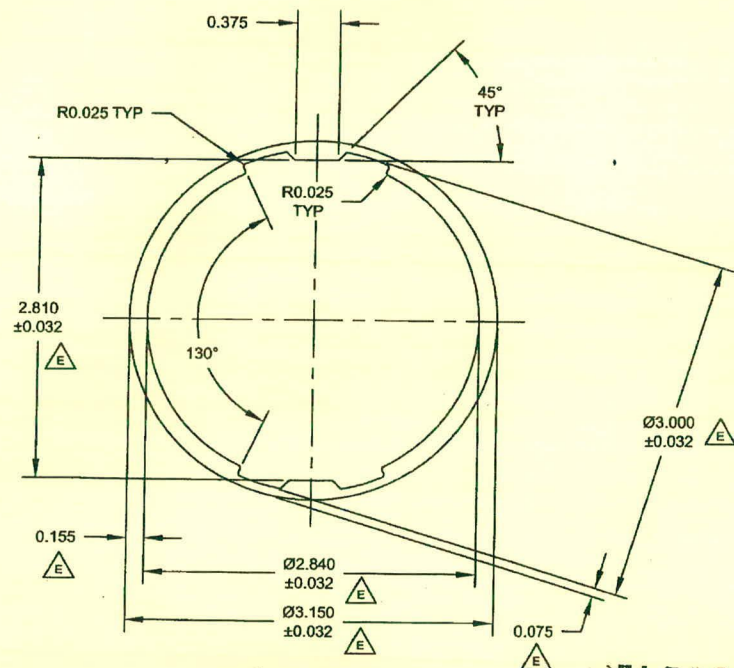
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N PER DART QSI 044 6.1 (FINE POINT PERMANENT INK MARKER)
- 7) WEIGHT: D2600-1 = 0.078 lb/in, D2600-3 = 0.130 lb/in, D2600-5 = 0.045 lb/in, D2600-7 = 0.091 lb/in
- 8) NO TOOLING MARKS
- 9) FOR D2600-1, PART NUMBER IS D2600-1-XXX WHERE XXX IS CUT LENGTH (EX. D2600-1-160 IS 160" LONG).
D2600-1 EXTRUSION MANUFACTURED FROM:
- CARADON INDALEX DIE # MH-18870
- SIGNATURE ALUMINUM (BON-L) DIE # 897121
- 10) FOR D2600-3, PART NUMBER IS D2600-3-XXX WHERE XXX IS CUT LENGTH (EX. D2600-3-120 IS 120" LONG).
D2600-3 EXTRUSION MANUFACTURED FROM:
- CARADON INDALEX DIE # MH-18859
- SIGNATURE ALUMINUM (BON-L) DIE # 897122
- 11) FOR D2600-5, PART NUMBER IS D2600-5-XXX WHERE XXX IS CUT LENGTH (EX. D2600-5-108 IS 108" LONG).
D2600-5 EXTRUSION MANUFACTURED FROM:
- CARADON INDALEX DIE # MS-18871
- 12) FOR D2600-7, PART NUMBER IS D2600-7-XXX WHERE XXX IS CUT LENGTH (EX. D2600-7-125 IS 125" LONG).
D2600-7 EXTRUSION MANUFACTURED FROM:
- CARADON INDALEX DIE # MS-18872

RELEASED
2012-01-11

E	REFORMAT DWG; ALL DIMS & TOL. UPDATE TO MATCH MFG DIE DWGS; ADD ASTM B221 SPEC (D8-1)	CP	11.10.18
D	INCREASE MIN. UTS TO 40 KSI	DS	98.08.20
C	ADD D2600-3, UPDATE D2600-1 WIDTH, ADD DIE NO.	DS	98.04.16
B	CHANGE MATERIAL SPEC.	DS	97.09.09
A	NEW ISSUE	DS	97.01.21
REV.	DESCRIPTION	BY	DATE
DESIGN	#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	q		
CHECKED	AJS	DRAWING NO.	REV. E
MFG. APPR.	CE	D2600	SHEET 1 OF 3
APPROVED	#	TITLE	SCALE
DE APPR.	#	EXTRUSION	NTS
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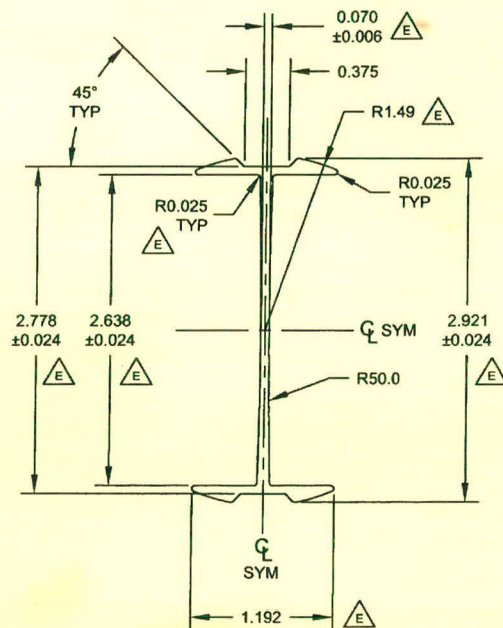
D2600-1 EXTRUSION



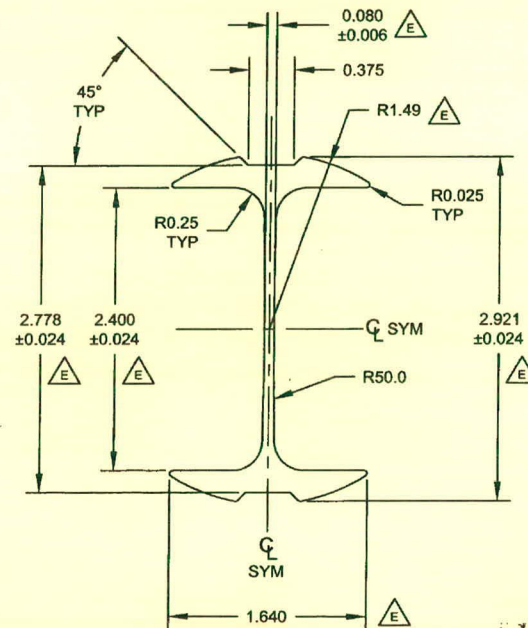
D2600-3 EXTRUSION

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2012-01-11

DESIGN	4	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JP		
CHECKED	ASS	DRAWING NO.	REV. E
MFG. APPR.	E	D2600	SHEET 2 OF 3
APPROVED	WNO	TITLE	SCALE
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D2600-5 EXTRUSION



D2600-7 EXTRUSION

RELEASED
68 2012-01-11
WMD

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>[Signature]</i>	D2600	SHEET 3 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041427**

Supplier: ATE003-VC
Atelier Debosselage
358 Principale
Calumet
QC
J0V 1B0 Canada
Phone: 819 242 5633

PO No: PO041427

PO Date: 10/23/18

Due Date: 10/26/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	182676	D350-636-015	1- PRIME AS PER DWG AND QSI 005 4.2.1.3.3 PRIMER PRC DESOTO 515X349 BATCH: _____ 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: _____	Firmed	-	10/26/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
2	178945	D350-636-012	1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: _____ 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: _____	Firmed	-	10/26/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
3	182677	D350-636-016	1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: _____ 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: _____	Firmed	-	10/26/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
4	180932	D206-642-541	Make sure Nut Plate Thread is protected using paint screw. 1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: _____ 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: _____	Firmed	-	10/26/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00

10/23/2018

PURCHASE ORDER



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO041427

Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
	180935		<i>1x</i> OCT 24 2018	Firmed	-	10/26/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
	167711		<i>1x</i> OCT 25 2018	Firmed	-	10/26/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
Sub Total:							3	0	3		\$675.00

Grand Total: \$1,350.00

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 10/23/18 3:28 PM dart.tsimiklis.chrisoula

Kim Johnston

From: Sonia Quirion
Sent: Thursday, November 01, 2018 6:17 AM
To: Kim Johnston; Michelle GagnonDonovan
Subject: L/B

d350-636-016 S108258 2L/B WHITE I RED

d350-636-015 S109868 :::::::::::::::

d350-636-012 S107590 :::::::::::::::

Change Record

PAGE 1 OF 1

Part Number: D350-636-015/-016

Description: SKIDTUBE STD LH/RH w/ TRAINING WEARPLATE

[illegible]

